

ABSTRACT

It is the objective of this invention to provide a multichannel digital filter bank
5 circuit and a method implemented by cascading sub-filters of the recursive type
suitable for graphically equalizing electrical signals received via a communication
path. It is also an objective of this invention to produced equalized signals
having minimal distortion of signal spectral characteristics including magnitude
and phase. The circuit of this invention is implemented with cascaded
10 connections of first order or second order digital filters. It is an additional
objective of this invention to provide for the programming of the individual
transfer functions of the above digital filters so as to produce
unity gain. This unity gain case results in an output signal which is an exact
replica of the input signal with no delay. This result indicates the minimal
15 distortion introduced by the method of this invention.

20